

Balancing Environmental Protection and Economic Development in Mexico



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[Photo: Butterflies start to cluster in the late afternoon.]

Every winter, 200 million Monarch butterflies from Canada and the northern United States congregate in the Eastern Sierra Madre mountains of central Mexico. More than 20 million of them crowd into a wooded area the size of three football fields and at least 10 such colonies dot the border between the states of Mexico and Michoacan.

The Monarch's winter habitat, however, is also home for 900,000 Mexicans, many of whom depend on the same forest to survive. Population growth and a weak local economy pose a threat to the Monarch's home in Mexico — a threat the [International Model Forest Network](#) Secretariat (housed at IDRC) and Mexico's Ministry of the Environment (SEMARNAP) have teamed up to address. As a result of their efforts, the Canadian and Mexican governments have each agreed to spend CA\$1.2 million both to continue funding Mexico's existing model forest program and to create a new 795,000 hectare model forest, where local inhabitants can work together to develop ways to combine economic growth with butterfly preservation.

Canadian connection

The story of Canada's involvement with the Monarch's wintering zone began in 1976 when Fred Urquhart, a scientist at the University of Toronto, traced the butterfly's migratory route. Since then, tourists have flocked to the Monarch colonies each winter to witness the flurry of activity as butterflies feed during the day and the late afternoon tranquility when, chilled into stillness by the cold, Monarchs gather into great clusters that weigh down the branches of tall evergreens.

The Mexican government has taken a series of steps to protect the butterflies. In 1980, the Monarch wintering zones were declared Wildlife Refuges. Six years later, five wintering zones — encompassing a total area of 16,000 hectares — were deemed sanctuaries, consisting of a nucleus (where no economic activity is allowed) and a buffer zone (where logging, hunting, and tourism must meet the approval of federal authorities).

People's needs forgotten

But this approach was doomed from the start. "With this overwhelming preoccupation for the protection of the Monarch and its habitat, the people of these zones were forgotten," explains [Marco Antonio Bernal](#), Michoacan State Coordinator of the Monarch Butterfly Model Forest. Over the next ten years, as the human population grew, illegal activity in the sanctuaries also increased. Lacking alternative sources of income, people cut trees, hunted animals, and harvested plants for food or medicinal uses. As a result, the region's forested areas are receding and some land has been cleared for residential and agricultural purposes within the sanctuaries.

"As long as people don't have any other recourse, they will continue to exploit natural resources in an abusive way," Bernal comments. It is precisely to address this universal truth that Canada established the world's first model forests in the early 1990's to help promote the management, conservation, and sustainable development of its forest resources. Since then, the model forest concept has spread well beyond Canada's borders — an international network of model forests currently includes eleven in Canada, seven operating in other countries, and another eight in the planning stages. For Mexico, the Monarch Butterfly Model Forest is the third of its kind, joining the Chihuahua and Calakmul model forests, located in the states of Chihuahua and Campeche.

Mosaic of solutions

In October 1997, staff of the Monarch Butterfly Model Forest began meeting with Mexican farmers' organizations, county officials, and leaders of traditional community-run tracts of land (called ejidos). Together, these community representatives are identifying promising income-generating ventures — such as construction of tourist facilities, trout and mushroom farming — that will not harm the butterflies or their habitat. According to Bernal, they are not looking for a quick economic fix but rather a mosaic of solutions for the 300 x 250 kilometre model forest region, which straddles 22 Mexican counties and embraces hundreds of villages and ejidos.

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